Before the
Federal Communications Commission
Washington, D.C. 20554

Amendments to Parts 1, 2 and 101 of the Commission's Rules To License Fixed Services at 24 GHz	))))	WT Docket No. 99-327

NOTICE OF PROPOSED RULEMAKING

Adopted: November 4, 1999 Released: November 10, 1999

By the Commission:

Comment Due Date: **December 10, 1999**
Reply Comment Due Date: **December 27, 1999**

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I. INTRODUCTION

1. In this Notice of Proposed Rulemaking (Notice), we propose licensing and service rules to govern the 24 GHz band generally. Specifically, in this Notice:

- We propose that future licensees in the 24 GHz band, as well as licensees relocated to the 24 GHz band from the 18 GHz band, will be generally subject to Part 101 of the Commission's Rules, as modified to reflect the particular characteristics and circumstances of this band.

- We also propose to apply competitive bidding procedures under the Commission's Part 1 competitive bidding rules for future licensing in the band.

We solicit comment on these and the various other proposals set out in this Notice, as well as Appendix B.

II. DISCUSSION

A. Background

2. In 1983, the Commission adopted rules for Digital Electronic Message Service ("DEMS"), which was envisioned as a high-speed, two-way, point-to-multipoint terrestrial microwave transmission system.[1] The service was allocated spectrum in the 18.36-18.46 GHz band paired with the 18.94-19.04 GHz band. Subsequently, the Commission modified the initial DEMS allocation, instead designating spectrum in the 18.82-18.92 GHz and 19.16-19.26 GHz bands.[2] The Commission began to grant DEMS licenses in the early 1980's, but the service was not initially commercially successful. Frequently, licensees had to return their licenses because they had not met construction requirements. The high cost of equipment appears to have been one of the many issues involved in the service's lack of early success. In the early 1990s, a small number of companies, including Associated Communications, L.L.C., Digital Services Corporation, Microwave Services, Inc., and Firstmark Communications, Inc., began acquiring licenses in approximately 30 of the country's largest markets.[3]

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[1] DEMS systems are point-to-multipoint microwave networks designed to communicate information between a fixed main (nodal) station and a number of fixed user terminals. When the FCC originally identified spectrum in the 18 GHz band for DEMS in 1981, the primary use was expected to be by businesses requiring internal networks to distribute documents, share data, and hold teleconferences. Licensed for both common carrier and private use, DEMS is now governed by Part 101 of the FCC's rules. For additional background on the development of DEMS, *see* Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service From the 18 GHz Band to the 24 GHz Band and to Allocate the 24 GHz Band for Fixed Service, *Memorandum Opinion and Order*, FCC 98-155 (rel. July 17, 1998) ("*DEMS MO&O*").

[2] *See id.*

[3] *See generally DEMS MO&O.*

3. In January 1997, and again in March 1997, the National Telecommunications and Information Administration ("NTIA"), on behalf of the United States Department of Defense ("DoD"), formally requested that the Commission take action to protect military satellite system operations in the 18 GHz band.[4] NTIA stated that DEMS use of frequencies in the 17.8-20.2 GHz bands within 40 kilometers of existing Government Fixed-Satellite Service ("FSS") earth stations "will not be possible." As a result, NTIA asked the Commission to protect those government satellite earth stations operating in the 18 GHz band in Washington, D.C. and Denver, and "[e]xpeditiously undertake any other necessary actions, such as amending the Commission's rules and modifying Commission issued licenses." Specifically, in its January 1997 letter,[5] NTIA stated:

> We are asking that these actions be undertaken on an expedited basis. As we have previously indicated, this matter involves military functions, as well as specific sensitive national security interests of the United States. These actions are essential to fulfill requirements for Government space systems to perform satisfactorily.

The Commission is permitted to amend its Rules without complying with the notice provisions of the Administrative Procedure Act (APA) in cases involving any "military, naval of [sic] foreign affairs function of the United States" or where the agency for good cause finds "notice and public procedure... are impracticable, unnecessary, or contrary to the public interest."[6] To protect the two government earth stations from interference, NTIA proposed to make 400 MHz of spectrum available in the 24 GHz band so that the Commission could relocate DEMS licensees. Recognizing the Commission's objective of maintaining DEMS on a uniform, nationwide frequency band, NTIA stated that "[t]aking into account our common interests, [NTIA] could make available spectrum in the region of 24.25-24.65 GHz" and suggested that "the Commission take such steps as may be necessary to license DEMS stations in this spectrum . . ."[7]

4. For its part, the Commission had before it sharing issues between 18 GHz non-Government satellite services and DEMS.[8] In July 1996, the Commission designated 500 MHz of spectrum in the 18.8-19.3 GHz band for non-geostationary satellite orbit, fixed satellite service (NGSO/FSS) downlinks to help meet increasing demand for spectrum for this service.[9] Initially, it

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4 *See id.* at 5.

5 *See id.* at 5.

6 *See id.*at 5.

7 See *id.* at 5.

8 *See* Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service from the 18 GHz Band to the 24 GHz Band and To Allocate the 24 GHz Band For Fixed Service, Order, 12 FCC Rcd 3471 at ¶¶ 10-19. (1997) ("*Reallocation Order*").

9 See Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5

appeared that sharing between NGSO/FSS and DEMS would be possible. However, subsequent to that allocation, the Teledesic Corporation, the only applicant for an NGSO/FSS system in the 18 GHz band, indicated that coordination between the two services might present difficulties.

5. Finally, on March 5, 1997, NTIA reiterated its request for protection of government systems, using the 18 GHz band and further discussed the issues regarding use of that spectrum.[10] NTIA stated again that it had "determined that both existing and anticipated FCC licensees could cause interference problems to the Federal Government use of the 18 GHz band." Consequently, NTIA offered to withdraw government co-primary allocations for radionavigation[11] service in the 24.25-24.45 and 25.05-25.25 GHz bands to clear the way for DEMS relocation. Accordingly, in the *Reallocation Order*,[12] adopted on March 14, 1997, the Commission amended the Table of Frequency Allocations and Part 101 of the Commission's Rules[13] regarding Fixed Microwave Services to permit fixed service use of the 24.25-24.45 GHz and 25.05-25.25 GHz bands (24 GHz band). This also had the practical effect of resolving potential interference concerns between non-Government NGSO/FSS and DEMS operations at 18 GHz.

B. Licensing Plan for 24 GHz Services

1. Table of Allocations

6. In the *Reallocation Order*,[14] the Commission amended the Table of Allocations in Part 2 of the Commission's Rules[15] to add the fixed service on a primary basis in the 24 GHz band, and the Commission recognized the deletion of radionavigation by the government from its portion of the 24 GHz band.[16] One issue we intend to examine in this rulemaking is whether the Table of Allocations

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GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, 11 FCC Rcd. 19005 (1996).

[10] See *DEMS MO&O, supra* at 5.

[11] Radionavigation is a service used to determine the position, velocity and/or other characteristics of an object, through the use of propagation properties of radio waves for purposes of navigation (e.g., obstruction warning). *See* 47 C.F.R. § 2.1.

[12] *See Reallocation Order, supra,* 12 FCC Rcd 3471.

[13] *See* 47 C.F.R. § 101.

[14] *See Reallocation Order, supra* at 3480-81 (Appendix A).

[15] *See* 47 C.F.R. § 2.

[16] *Reallocation Order,* 12 FCC Rcd at 3473, ¶ 6 (footnote omitted):

should be amended further to facilitate other possible uses of spectrum in the 24 GHz band. We have focused our initial review on the issue of whether mobile service should be added to the Table of Allocations for the 24 GHz band. Based on the information currently available, it appears that, in the near term, equipment may not be available for mobile use in the 24 GHz band. Licensees at 18 GHz are limited to fixed service, and no one has requested the opportunity to provide mobile service at 24 GHz. If, contrary to our assumption, equipment is available for mobile use in this band, and interference problems can be resolved, we know of no reason why we would not allow mobile operations. We believe this would be consistent with our goal of providing 24 GHz licensees with flexibility in designing their systems. We seek comment on whether the Commission should include an allocation in the 24 GHz band for mobile service.

7. In response to a Petition filed by DirecTV, the Commission proposed to amend the Commission's Table of Allocations and rules to provide, among other things, for the use of the 24.75-25.25 GHz band for Broadcasting Satellite Service (BSS) Earth-to-space "feeder links" in the FSS.[17] Current 24 GHz licensees contend that the Commission would have to prohibit 24 GHz BSS feeder link sites within 300 miles of the boundaries of each 24 GHz service area, a requirement that would be too impractical and inefficient to be consistent with the public interest.[18] On the other hand, DirecTV takes the position that it is possible for BSS feeder links and 24 GHz nodal stations, which are the central or controlling station in a radio system operating on point-to-multipoint frequencies, in the 25.05-25.25 GHz band to share spectrum on a co-frequency basis at distances in the range of 0.2 miles.[19] Because BSS feeder link stations need not be ubiquitously employed and can be located outside population

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> On March 5, 1997, [the Commission] received a . . . letter from NTIA [National Telecommunications and Information Administration] making the [24 GHz band] available for non-Government uses . . . . The [letter] reiterates the Government's determination that existing DEMS licensees must relocate to minimize potential interference to Government Earth stations in the 18 GHz band pursuant to footnote US334 and national security interests. To this end, NTIA has withdrawn the allocation for the Government radionavigation service in the [24 GHz band] to permit relocation of DEMS from the 18 GHz band. In addition, NTIA requires that the Commission limit future FCC licensees from using the 17.8-20.2 GHz band for operations in the Washington, D.C. and Denver areas . . . .

[17] *See* Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use, *Notice of Proposed Rulemaking*, 13 FCC Rcd 19923 (1998) (*"18 GHz Band Plan"*). *See also* DirecTV Enterprises, Inc. Petition, To Amend Parts 2, 25, and 100 of the Commission's Rules To Allocate Spectrum for the Fixed-Satellite Service and the Broadcasting Satellite Service, filed June 5, 1997. DirecTV also seeks amendment of the Table of Allocations and the service rules to provide for the use of the 17.3-17.8 GHz band in the space-to-earth direction for BSS, and to adopt a 4.5° orbital spacing policy for the use of these bands to provide BSS service.

[18] Joint Opposition of Digital Services Corporation, Microwave Services, Inc., and Teligent, L.L.C., filed July 31, 1997.

[19] Technical Response of DirecTV, filed Aug. 27, 1997.

centers, we believe sharing between these services may be feasible. In the *18 GHz Band Plan* proceeding, the Commission noted that the corresponding downlink BSS allocation in the 17.3-17.8 GHz band cannot become effective until after April 1, 2007; and thus there is no immediate need to implement the FSS allocation in the 25.05- 25.25 GHz band. Delaying the FSS allocation would allow sufficient time for a detailed sharing methodology to be formulated between terrestrial fixed service interests and satellite interests.[20] In light of the foregoing, we tentatively conclude, based on preliminary review of the petition and comments filed regarding such FSS use of this band, that the criteria need not be as severe and restrictive as that put forth by the current 24 GHz licensees, and that a more workable solution can be developed. We solicit comment on the interaction between these two services.

8. We propose to revise the Table of Frequency Allocations in Part 2 of our rules[21] to delete the non-Government radionavigation service allocations in the 24.25-24.45 GHz and 25.05-25.25 GHz bands, which is consistent with previous Government action taken with respect to these bands. The Commission has not issued any licenses for the use of these bands by the radionavigation service, and we do not anticipate any demand for this service in these bands. Further, we also propose to delete footnote US341 from the Table of Frequency Allocations because the Federal Aviation Administration has decommissioned its remaining radar facility at the Newark, New Jersey International Airport and thus, concluded its operations in the 24.25-24.45 GHz band.[22] In light of the foregoing, we propose to amend the frequency table in the aviation service rules, specifically Section 87.173(b), by changing the entry for 24.25-25.45 GHz to 24.45-25.05 GHz, which would remain available for use by the aeronautical radionavigation service.[23]

2. Geographic Area-Wide Licensing

9. We propose to license the 24 GHz band spectrum on the basis of 172 Economic Areas (EAs), which were developed by the Department of Commerce's Bureau of Economic Analysis (BEA),[24] because we believe this licensing scheme would best serve the public interest in facilitating efficient use of this spectrum. We seek comment on this proposal. We tentatively conclude that using EAs for 24

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[20] *18 GHz Band Plan, supra* at 19959, ¶ 81.

[21] *See* 47 C.F.R. 2.106.

[22] *See* 47 C.F.R. § 2.106; *see also* letter from Gerald J. Markey, Program Director for Spectrum Policy and Management, Federal Aviation Administration to William Hatch, Chairman, Interdepartment Radio Advisory Committee, National Telecommunications and Information Administration, June 17, 1999.

[23] *See* 47 C.F.R. 87.173(b).

[24] The Bureau of Economic Analysis has divided the Nation into regional economic areas that consist of metropolitan areas that are centers of economic activity and their economically related surrounding counties. *See* Final Redefinition of the BEA Economic Areas, 60 Fed. Reg. 13114 (March 10, 1995).

GHz licenses in connection with our proposed partitioning and disaggregation rules discussed below,[25] will create reasonable opportunities for the dissemination of 24 GHz licenses among a large number of entities.[26] [27] We also tentatively conclude that using EAs for 24 GHz licenses will facilitate service to rural areas.[28] Specifically, because EAs typically contain both urban and rural areas, licensees will have both the legal authority to provide service in both areas and the financial incentive to do so in order to earn a return on their investment in their licenses. In contrast, the Standard Metropolitan Statistical Areas ("SMSA") which were originally used to license DEMS service did not include rural areas, and thus, rural areas were not provided the service. Further, the relatively small size of EAs will allow for a more rapid build-out than might be the case in a larger geographic area. In addition, to give licensees maximum flexibility, we tentatively conclude that licensees will be permitted to aggregate licenses in order to operate in larger geographic areas. We seek comment on these tentative conclusions. Because the Commission used SMSAs to license those that were originally relocated from 18 GHz to 24 GHz, we propose to exclude from the applicable EAs, the areas currently licensed in the 24 GHz band, and to add as three additional areas for licensing the United States territories and possessions over which we have jurisdiction: Guam and the Commonwealth of Northern Marianas (EA 173), Puerto Rico and the U.S. Virgin Islands (EA 174), and American Samoa (EA 175).[29] We seek comment on these proposals.

10. We also request comment on alternative geographic areas, including nationwide licenses, and licenses based upon Metropolitan and Rural Service Areas (MSAs and RSAs),[30] Regional Economic

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[25] *See infra* at ¶¶ 26-28.

[26] *See* 47 U.S.C. § 309(j)(3)(B).

[27] This decision is consistent with our recent decision to use EAs for licensing the service areas in the 39 GHz proceeding. *See* In the Matter of Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Band, ("39 GHz ") *MO&O*, ET Dkt. No. 95-183, (rel July 26, 1999) at ¶ 46. There, we relied upon many of the same factors: (a) foster investment in and rapid deployment of new technologies and services; and (b) encourage economic opportunities among a wide variety of applicants; which we cite in support of our decision to use EAs in this proceeding. *Id.* In the 39 GHz proceeding, we declined to adopt our initial decision to use BTAs for licensing purposes, stating: "new developments concerning Rand McNally's copyright interest in BTAs lead us to conclude that using BTAs as service areas for 39 authorizations could result in extended delays in the 39 GHz licensing process." (footnote omitted) *Id.* at ¶ 46 In light of the foregoing, we are persuaded to not employ BTAs, which were used for licensing purposes in the Local Multipoint Distribution Service ("LMDS") proceeding. *See LMDS Second Report and Order*, 12 FCC Rcd 12545 at 22604, ¶ 135.

[28] *See* 47 U.S.C. § 309(j)(3)(A).

[29] *See e.g.*, Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, *Third Report and Order; Fifth Notice of Proposed Rulemaking*, 12 FCC Rcd 10943, 10983-84, ¶ 80 (1997).

[30] *See* Implementation of Section 309(j) of the Communications Act--Competitive Bidding, *Fourth Report*

Area Groupings (REAGs), Major Economic Areas (MEAs) or other relevant geographic areas. Commenters supporting alternative geographic areas should specify which areas they support and explain in detail why those alternatives would be superior to the use of EAs for 24 GHz licensing areas.

3. Treatment of Incumbents

11. As the Commission discussed in the *Reallocation Order*,[31] incumbent licensees would begin to transfer their operations to frequencies in the 24 GHz band over a period of time commencing with the effective date, June 24, 1997, of the Order which modified the licenses.[32] After the transfer of operations by an incumbent licensee to the 24 GHz band, such licensee generally shall be governed by Part 101 of the Commission's rules.[33] Under those rules, transferred licensees are generally subject to the same rules as applied to operations in the 18 GHz band.

12. By this *Notice*, we propose to make licensees subject to any changes we make in this proceeding to the Part 101 rules that are generally applicable to the 24 GHz band, including interference criteria. Therefore, it is our tentative view that no special rules for protection of incumbents alone are necessary, any more than special protections would be required if additional providers were licensed in the 18 GHz band. We believe that the protection requirements of Part 101.509 will accommodate the new stations and allow licensees to effectively coordinate their systems. To the extent that any incumbent licensee wishes to use additional frequencies at 24 GHz or to extend its currently authorized service area,[34] then such licensee may apply for such a license or licenses subject to the Commission's competitive bidding and other assignment procedures available. Any incumbent licensee may also acquire additional frequencies in the 24 GHz band through the partitioning and disaggregation procedures proposed in Section II.C.4, *infra*.[35] We seek comment on these proposals.

4. Authorized 24 GHz Services

13. In the *Reallocation Order*, we adopted fixed service in this band as the only authorized use

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and Order, 9 FCC Rcd 2330, 2333, ¶ 16 (1994).

[31] *See Reallocation Order*, 12 FCC Rcd at 3476-77, ¶ 14.

[32] *See In the Matter of Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service from the 18 GHz Band to the 24 GHz Band and to Allocate the 24 GHz Band for Fixed Service*, 12 FCC Rcd. 8266 (1997)

[33] *See* 47 C.F.R. § 101.

[34] Each SMSA is comprised of at least one or more counties, except for the New England area where some areas consist of partial counties. See 1975, Office of Management and Budget Report, as amended, June, 1981.

[35] *See* ¶¶ 26-28, *infra*.

under the Commission's Table of Frequency Allocations. In keeping with this allocation, we propose to permit any 24 GHz licensee to use spectrum in the band for any fixed service. In addition, as discussed in Section II.B.1, *supra*, we seek comment on whether we should permit the use of this band for mobile services, should it become technically feasible to do so. While we propose general "fixed" use for this spectrum, we do not know precisely the types of services new licensees will seek to provide. We therefore propose rules that will enable licensees to offer a wide variety of services and that will minimize regulatory barriers and costs of operation. It is our tentative view that the proposals we are making regarding licensed services areas,[36] spectrum blocks,[37] and partitioning and disaggregation[38] will provide both incumbent and new licensees with a wide variety of options for using 24 GHz spectrum to meet market demands.

14. We note that Section 303(y) of the Communications Act grants the Commission "authority to allocate electromagnetic spectrum so as to provide flexibility of use," if "such use is consistent with international agreements to which the United States is a party"[39] and if the Commission makes certain findings.[40] We have not proposed to allocate this spectrum to multiple categories of service listed in the Table of Allocations, but rather have allocated spectrum only to the Fixed Service. However, in this service rule proceeding, we are seeking comment on whether to expand or revise our earlier approach. We seek comment on the findings required by Section 303(y) of the Act and whether Section 303(y) applies here.

15. We propose to modify Part 101 of the Commission's rules to include the entire range of digital services to be provided at 24 GHz, so that the use of the 24 GHz band by new and relocated licensees[41] in the 24 GHz band shall be subject to those rules.[42] We also propose to modify Part 101 of the Commission's rules to the extent necessary to reflect the particular characteristics and circumstances

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36 *See* ¶¶ 9-10, *supra*.

37 *See* ¶¶ 16-17, *infra*.

38 *See* ¶¶ 26-28, *infra*.

39 *See* 47 C.F.R. § 303(y)(1). *See* also, *supra* at ¶ 6.

40 *See* 47 U.S.C. § 303(y)(2). This section states that the Commission must find that: (1) such an allocation would be in the public interest; (2) such use would not deter investment in communications services and systems, or technology development; and (3) such use would not result in harmful interference among users.

41 Because relocated and new licensees in the 24 GHz band will be treated the same, we will refer to both as "24 GHz licensees." We will refer to them separately as "relocated licensees" and "new licensees."

42 Consequently, all applications for licenses will be filed pursuant to § 101 of 47 C.F.R..

of the services to be offered. We seek comment on this general approach. We discuss several specific issues in this *Notice*, but also request comment on any other changes in the existing Part 101 rules that might be useful or necessary for the 24 GHz band. We believe that making this spectrum available for use under these rules is in the public interest because it will contribute to technological and service innovation and, more robust competition in the telecommunications service markets.

5. Spectrum Blocks

16. In the *Reallocation Order*, the Commission decided to license relocated operations in 40 megahertz channel pairs.[43] We propose that the same amount of spectrum be provided to each new 24 GHz licensee as is provided under the rules for the relocated licensees adopted in the *Reallocation Order*. In the *Reallocation Order*, the Commission discussed the basis for its conclusion that DEMS licensees need 40 megahertz channel pairs at 24 GHz for their capacity to be equivalent to the capacity they have at 18 GHz. We found that differences in propagation, rain attenuation, and available equipment between the two bands would require DEMS systems at 24 GHz to use approximately four times as much bandwidth as DEMs systems at 18 GHz to maintain comparable reliability and coverage.[44] While this analysis would not necessarily apply to non-DEMS use at 24 GHz, we believe that 40 megahertz paired blocks would be efficient for such use. Thus, we propose that we license five spectrum blocks, except in the SMSAs where there are incumbent licensees. Each spectrum block shall consist of a pair of 40 megahertz channels. We also propose to modify the emission mask in Section 101.111 to accommodate the changes in spectrum and bandwidth.[45] We seek comment on these proposals.

17. We tentatively conclude that the use of EAs, described in Section II.B.2, *supra,* as well as the partitioning and spectrum disaggregation, described in Section II.C.4, *infra,* will result in economic opportunity for a wide variety of applicants, including small business, rural telephone, and minority-owned and women-owned applicants, as required by Section 309(j)(4)(C). These proposals, we tentatively conclude, will lower entry barriers through the creation of licenses for smaller geographic areas, thus requiring less capital and facilitating greater participation by such entities.

C. Application, Licensing, and Processing Rules

1. Regulatory Status

18. In this Notice, we are proposing a broad licensing framework for implementing services in the 24 GHz spectrum band. Under our proposal, a 24 GHz licensee would be allowed to provide a

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[43] *See* Section 101.109(c) of the Commission's Rules, 47 C.F.R. § 101.109(c), as amended by the *Reallocation Order* (providing for 40 megahertz spectrum blocks).

[44] *See Reallocation Order,* 12 FCC Rcd at 3475, ¶12, 3483-85 (Appendix B).

[45] *See* 47 C.F.R. § 101.111.

variety or combination of fixed services.[46] In order to fulfill its enforcement obligations and ensure compliance with the statutory requirements of Titles II and III of the Communications Act, the Commission has required applicants to identify whether they seek to provide common carrier services.

19. In the *LMDS Second Report and Order*, the Commission required applicants for fixed services to indicate if they planned to offer services as a common carrier, a non-common carrier, or both, and to notify the Commission of any changes in status without prior authorization.[47] We seek comment on a similar proposal to permit an applicant for a 24 GHz license to request common carrier status as well as non-common carrier status for authorization in a single license, rather than require the applicant to choose between common carrier and non-common carrier services, and to change regulatory status upon notification without prior approval. The licensee would be able to provide all allowable services anywhere within its licensed area at any time, consistent with its regulatory status. This approach, we tentatively conclude, would achieve efficiencies in the licensing and administrative process. This is consistent with our approach with respect to Multipoint Distribution Service ("MDS") and the Local Multipoint Distribution Service ("LMDS").[48] Apart from the designation of regulatory status, we propose not to require 24 GHz license applicants to describe the services they seek to provide. We believe it is sufficient that an applicant indicate its choice for regulatory status in a streamlined application process.[49] In providing guidance on this issue to MDS and LMDS applicants, we pointed out that an election to provide service on a common carrier basis requires that the elements of common carriage be present;[50] otherwise, the applicant must choose non-common carrier status.[51] Accordingly, a

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[46] The Commission amended the Part 101 Rules to apply to incumbent licensees moved to the 24 GHz band in the *Reallocation Order*, *supra* at 3478-3485.

[47] *LMDS Second Report and Order*, *supra*, at 12636-38, 12644-45, 12652-53, ¶¶ 205-208, 225-226, 245-251. *See also* 47 C.F.R. § 101.1017.

[48] *See* Revisions to Part 21 of the Commission's Rules Regarding the Multipoint Distribution Service, 2 FCC Rcd 4251, 4252-53, ¶¶ 9-16 (1987) (*"MDS Report and Order"*); *LMDS Second Report and Order*, 12 FCC Rcd at 12643-45, ¶¶ 221-227.

[49] The Commission has explained that any video programming service will be treated as a non-common carrier service. *See LMDS Second Report and Order*, 12 FCC Rcd at 12639-41, ¶¶ 213-215. Thus, any applicant intending to provide a video programming service would appropriately indicate a choice of non-common carrier regulatory status.

[50] Section 3 of the Communications Act defines telecommunications as: "the transmission between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." *See* 47 U.S.C. § 153(43). "A telecommunications carrier shall be treated as a common carrier only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage." *See* 47 U.S.C. § 153(44)

[51] *See MDS Report and Order*, 2 FCC Rcd at 4252-53, ¶¶ 9-16; *LMDS Second Report and Order*, 12 FCC Rcd at 12643-45, ¶¶ 221-227.

determination of regulatory status will be based on the service actually provided, rather than the service proposed. We also propose that if licensees change the service they offer such that it would change their regulatory status, they must notify the Commission, although such change would not require prior Commission authorization. We propose that licensees notify the Commission within 30 days of this change, unless the change results in the discontinuance, reduction, or impairment of the existing service, in which case the licensee is also governed by Section 101.305 and submits the application under Section 101.61 in conformance with the time frames and requirements of Section 101.305.[52]

2. Eligibility

20. Our primary goal in the present proceeding is to encourage efficient competition, particularly in the local exchange telephone market. In assessing whether to restrict the opportunity of any class of service providers to obtain and use spectrum to provide communications services in the 24 GHz band, we seek to determine whether open eligibility poses a significant likelihood of substantial competitive harm in specific markets, and, if so, whether eligibility restrictions are an effective way to address that harm.[53] This approach relies on competitive market forces to guide license assignment absent a showing that regulatory intervention to exclude potential participants is necessary.[54] Such an approach is appropriate because it best comports with our statutory guidance. When granting the Commission authority in Section 309(j)(3) of the Communications Act to auction spectrum for the licensing of wireless services, Congress acknowledged our authority "to [specify] eligibility and other characteristics of such licenses."[55] However, Congress specifically directed that we exercise that authority so as to "promot[e] . . . economic opportunity and competition."[56] Congress also emphasized this pro-competitive policy in Section 257, where it articulated a "national policy" in favor of "vigorous economic competition" and the elimination of barriers to market entry by a new generation of

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[52] *See* 47 C.F.R. § 101.305. Section 101.305 (a) states in part: "If the public communication service provided by a station in the Common Carrier Radio Services and the Local Multipoint Distribution Service is involuntarily discontinued, reduced or impaired for a period exceeding 48 hours, the station licensee must promptly notify the Commission, in writing[.]" Section 101.305 (c) states in part: "Any licensee not subject to title II of the Communications Act of 1934, as amended, who voluntarily discontinues, reduces or impairs public communication service to a community or a part of a community must give written notification to the Commission within 7 days thereof."

[53] *See* Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands and Implementation of Section 309(j) of the Communications Act — Competitive Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz, *Report and Order and Second Notice of Proposed Rulemaking*, 12 FCC Rcd 18600, 18619, ¶ 32 (1997) ("*39 GHz Report and Order*").

[54] *Id.*

[55] *See* 47 U.S.C. § 309(j)(3).

[56] *Id.*

telecommunications providers.[57]

21. Current providers in the 24 GHz band offer a range of services such as local and long distance telephony and internet access. We tentatively conclude that open eligibility for 24 GHz licenses will not pose a significant likelihood of substantial competitive harm in local exchange telephone markets, and that it is therefore unnecessary to impose eligibility restrictions on incumbent local exchange carriers ("ILECs"). This tentative conclusion is based on several factors. First, other wireless providers such as LMDS[58] and 39 GHz[59] licensees may provide competition in the local telephony markets. Second, other facilities-based, wireline entrants such as interexchange carriers and competitive LECs, and non-facilities-based wireline entrants utilizing the local competition provisions of the Communications Act, may provide competition in these markets as well. Third, in LMDS, a fixed broadband point-to-multipoint microwave service in the 28 GHz band, ILECs and cable companies have been prohibited from holding an attributable interest in any license whose geographic service area significantly overlaps such incumbent's authorized or franchised service area.[60] This prohibition guaranteed that initially each one of those licenses will be acquired by a firm new to the provision of local exchange in the service area. These new providers have now had a significant opportunity to enter these markets without the participation of ILECs and cable interests. Finally, under our proposal in Section II.B.5. *supra*, we will make available five licenses for each geographic area. This number of licenses permits numerous 24 GHz licensees in any one market and, thus, numerous competitors for the licenses. This scenario makes it more difficult for an incumbent LEC to acquire all the licenses in a single geographic area. Taken together, these factors demonstrate that an incumbent strategy of trying to forestall competition in local telephony by buying 24 GHz licenses cannot succeed because there are several other sources of actual and potential competition.

22. Given all these competitive possibilities, we tentatively conclude that it would be exceedingly difficult for an incumbent LEC to pursue a strategy of buying 24 GHz licenses in the hope of foreclosing or delaying competition, and implausible that it would succeed at that strategy. As noted, we seek comment on these tentative conclusions. We also tentatively conclude that the spectrum made

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[57] *See* 47 U.S.C. § 257.

[58] *See* 47 C.F.R. § 101.1003(a).

[59] Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, ET Docket No. 95-183, *Report and Order and Second Notice of Proposed Rulemaking*, 12 FCC Rcd 18600 (1997).

[60] The Commission adopted the temporary eligibility restriction in 1997. *See Second Report and Order*, *supra*, 12 FCC Rcd at 12616, ¶ 162 wherein we stated: "Based on the record here, standard economic theory, our experience, an analogous situation in the cable TV industry, and our assessment of competitive and regulatory developments in the local telephony and MVPD markets, we find on balance that a policy favoring restricted eligibility for a limited time would result in the greatest likelihood of increased competition in the local telephony and MVPD markets. By restricting in-region LEC and cable companies, we ensure the entry of a new LMDS operator that could provide competition in the LEC market, the MVPD market, or both."

available for 24 GHz may be inadequate to enable the provision of competitive multi-channel video programming distribution (MVPD) service, and that incumbent cable company acquisition of these licenses does not raise anti-competitive concerns. We base this conclusion in part on Teligent's current service offerings, which are generally limited to voice and data, as well as our own assessment. We also rely on the number of licenses (five) available in each geographic area to check anti-competitive conduct by cable operators. Nevertheless, we do note, however, that cable companies are increasingly offering high speed internet access, a service offering that Teligent is currently providing. Our concerns about anti-competitive behavior by cable companies is substantially attenuated by the existence of alternative sources of such internet access, including digital subscriber lines, fixed wireless applications, and satellite. Furthermore, the cable companies are also subject to the restrictions in the LMDS service, which we have noted herein.[61] We, therefore, tentatively conclude that it is unnecessary to impose eligibility restrictions on incumbent cable operators

3. Foreign Ownership Restrictions

23. Certain foreign ownership and citizenship requirements are imposed in Sections 310(a) and 310(b) of the Communications Act, as modified by the 1996 Act, that restrict the issuance of licenses to certain applicants.[62] The statutory provisions are implemented in Section 101.7 of the Commission's Rules[63] and reflect the restrictions as they must be imposed on 24 GHz license applicants. Specifically, Section 101.7(a) prohibits the granting of any license to be held by a foreign government or its representative. Section 101.7(b) prohibits the granting of any common carrier license to be held by individuals who fail any of the four citizenship requirements listed in the rule.[64]

24. Based on the prohibitions set forth in Section 101.7(a), we conclude that neither a foreign government, nor its representative can hold a license, including either a common carrier or non-common carrier license, to operate in the 24 GHz band. In addition, we conclude that Section 101.7(b) prohibits any individual who fails to meet the four citizenship requirements set forth therein from holding a license to operate as a common carrier in the 24 GHz band.[65] Further, any individual who elects both common carrier and non-common carrier status must comply with Section 101.7(b)'s four citizenship requirements. But, since the prohibitions set forth in Section 101.7(b) do not apply to non-common carriers, an individual may elect to hold a license, as a non-common carrier in the 24 GHz band, without

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61 *See* note 60, *supra*.

62 *See* 47 U.S.C. §§ 310(a), 310(b).

63 *See* 47 C.F.R. § 101.7, as amended by Amendment of Parts 20, 21, 22, 24, 26, 80, 87, 90, 100, and 101 of the Commission's Rules to Implement Section 403(k) of the Telecommunications Act of 1996 (Citizenship Requirements), *Order*, 11 FCC Rcd 13072 (1996), adopting revised Section 101.7.

64 *See* 47 C.F.R. § 101.7(b).

65 *Id.*

complying with the four citizenship requirements, as long as the individual is still in compliance with the requirements set forth in Section 101.7(a). [66]

25. To assist our analysis of alien ownership restrictions, we tentatively conclude that applicants in the 24 GHz band shall file FCC Form 430. This requirement is identical to the information which we require MDS, satellite, and LMDS applicants to submit in order to assess the alien ownership restrictions under Section 101.7(b). Furthermore, both common carriers and non-common carriers would be required to file the information whenever there are changes to the foreign ownership information, as well as the other legal and financial qualifications. We would not disqualify an applicant requesting authorization exclusively to provide non-common carrier services solely because its citizenship information reflects that it would be disqualified from a common carrier license. However, consistent with what the Commission stated in the *Satellite Rules Report and Order* and in the *LMDS Second Report and Order*, we tentatively conclude that requiring non-common carriers to address all the alien ownership prohibitions better enables the Commission to monitor all of the licensed providers in light of their ability to provide both common and non-common carrier services.[67] We request comment on this proposal.

4. Aggregation, Disaggregation and Partitioning

26. As indicated above,[68] we propose to permit 24 GHz licensees to partition their service areas and to aggregate and disaggregate their spectrum. We believe that such an approach would serve to promote the efficient use of the spectrum. We thus tentatively conclude that partitioning and spectrum disaggregation will provide a means to overcome entry barriers through the creation of licenses for smaller geographic areas that require less capital, thereby facilitating greater participation by, and economic opportunity for, smaller entities such as small businesses, rural telephone companies, and businesses owned by minorities and women, as required by Section 309(j)(4)(C) of the Communications

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[66] For entities who seek compliance with Section 101.7(b)(4), we note that in response to the World Trade Organization ("WTO") Basic Telecommunications Agreement, the Commission has liberalized its policy for applying its discretion with respect to indirect foreign ownership of common carrier radio licenses. In general, the Commission now presumes that indirect ownership by entities from WTO members serves the public interest. Ownership by entities from countries that are not WTO members continues to be subject to the "effective competitive opportunities" test (which examines the legal ability of U.S. carriers to enter the foreign destination market and provide the relevant service, and if there are no legal barriers to entry, considers the practical ability for U.S. carriers to compete in those markets). The Commission has eliminated the "effective competitive opportunities" test for common carrier licensees or applicants with foreign investment from WTO member countries. *See* 47 C.F.R. § 101.7(b)(4); *See also* Rules and Policies on Foreign Participation in the U.S. Telecommunications Market and Market Entry and Regulation of Foreign-Affiliated Entities, *Report and Order and Order on Reconsideration*, 12 FCC Rcd 23891, 23935-47, ¶¶ 97-132 (1997) ("*Foreign Participation Report and Order*"). *Recon. pending*

[67] *Id.*; *LMDS Second Report and Order*, 12 FCC Rcd at 12651, ¶ 243.

[68] *See* ¶ 17, *supra*.

Act.[69] We request comment on this conclusion.

27. We also request comment regarding what limits, if any, should be placed on the ability of a 24 GHz licensee to partition its service area and disaggregate its spectrum. We note that in the *Partitioning and Disaggregation Report and Order* the Commission permitted both geographic partitioning and spectrum disaggregation by broadband PCS licensees. In the case of broadband PCS service, the Commission decided to permit geographic partitioning along any service area defined by the partitioner and partitionee, and spectrum disaggregation without restriction on the amount of spectrum to be disaggregated, and to permit combined partitioning and disaggregation.[70] The Commission concluded that allowing parties to decide without restriction the exact amount of spectrum to be disaggregated will encourage more efficient use of the spectrum and permit the deployment of a broader mix of service offerings, both of which will lead to a more competitive wireless marketplace.[71]

28. We request comment regarding whether such an approach should apply to 24 GHz licenses. If commenters take the position that such an approach should apply, they should also address what information should be filed with the Commission to allow us to maintain our licensing records.

5. License Term and Renewal Expectancy

29. We propose that the 24 GHz license term for both incumbent and new licensees be 10 years, with a renewal expectancy similar to that afforded PCS and cellular licensees. In the case of either a cellular or PCS licensee, a renewal applicant shall receive a preference or renewal expectancy if the applicant has provided substantial service during its past license term and has complied with the Act and applicable Commission rules and policies.[72] While preferring a substantial service requirement, we also invite comment on whether a build-out requirement is more appropriate for this service.[73] We believe that this 10-year license term, combined with a renewal expectancy, will help to provide a stable regulatory environment that will be attractive to investors and, thereby, encourage development of this frequency band. We also seek comment on whether a license term longer than 10 years is appropriate to achieve these goals and better serve the public interest. Commenters who favor a license term in excess

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[69] 47 U.S.C. § 309(j)(4)(C). *See* Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Services Licensees and Implementation of Section 257 of the Communications Act — Elimination of Market Barriers, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 21831, 21843-44, ¶¶ 13-17 (1996) ("*Partitioning and Disaggregation Report and Order*").

[70] *Id.* at 21847-48, ¶¶ 23-24.

[71] *Id.* at 21860, ¶ 49.

[72] *See* 47 U.S.C. § 151 *et seq.* Substantial service is service that is sound, favorable, and substantially above a level of mediocre service which might just minimally warrant renewal. *See* 47 C.F.R. § 22.940(a)(1)(i).

[73] *See infra* at ¶¶ 33-34.

of ten years should specify the appropriate license term and include a basis for the period proposed.

30. We propose that the renewal application of a 24 GHz licensee must include at a minimum the following showings in order to claim a renewal expectancy:

- A description of current service in terms of geographic coverage and population served or links installed and a description of how the service complies with the substantial service requirement.
- Copies of any Commission Orders finding the licensee to have violated the Communications Act or any Commission rule or policy, and a list of any pending proceedings that relate to any matter described by the requirements for the renewal expectancy.[74]
- If applicable, a description of how the licensee has complied with the build-out requirement.

These proposed requirements are based on those we ordered for LMDS.[75]

31. Under our proposal, in the event that a 24 GHz license is partitioned or disaggregated, any partitionee or disaggregatee would be authorized to hold its license for the remainder of the partitioner's or disaggregator's original license term, and the partitionee or disaggregatee will be required to demonstrate that it has met the substantial service, or build-out standard, requirements in any renewal application. We believe that this approach, which is similar to the partitioning provisions the Commission adopted for MDS[76] and for current broadband PCS licensees,[77] is appropriate because a licensee, through partitioning or disaggregation, should not be able to confer greater rights than it was awarded under the terms of its license grant.

D. Operating Rules

1. Performance Requirements

32. We seek comment on whether licensees in the 24 GHz band should be subject to a

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74 *Cf.* Section 22.940(a)(2)(i) through Section 22.940(a)(2)(iv) of the Commission's Rules, 47 C.F.R. §§ 22.940(a)(2)(i)-(iv).

75 *See* Section 101.1011 of the Commission's Rules, 47 C.F.R. § 101.1011.

76 *See* Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service, *Report and Order*, 10 FCC Rcd 9589, 9614, ¶ 46 (1995).

77 *See Partitioning and Disaggregation Report and Order*, 11 FCC Rcd at 21870, ¶¶ 76-77.

substantial service requirement or a minimum coverage requirements as a condition of license renewal. We have imposed such requirements on licensees in other services to ensure that spectrum is used effectively and service is implemented promptly.[78]

33. We seek comment on whether 24 GHz licensees should be required to provide "substantial service" to the geographic license area within ten years or any other license term which we adopt for this service.[79] We have defined substantial service as "service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal.[80] Further, as an alternative, safe harbor standard, we seek comment on whether there should be a construction requirement that the licensee transmit to reach a minimum of one-third of the population in their licensed area, no later than the mid-point of the license term and two-thirds of the population by the end of the license term. We also seek comment on whether, in the event that a 24 GHz license is partitioned or disaggregated, a partitionee or disaggregatee should be bound by the standard, either substantial service or a construction requirement, which we may adopt in this proceeding.

34. If a licensee does not comply with whichever standard, we adopt, either substantial service or minimum coverage, the Commission must consider what action to take. We could adopt a standard whereby a licensee who does not comply with the appropriate standard, either substantial service or minimum coverage, is subject to license termination upon action by the Commission or alternatively, the license would automatically cancel. We seek comment on whether to adopt an automatic cancellation standard or cancellation only upon action by the Commission. If the geographic licensee loses its license for failure to comply with coverage requirements, should the licensee be prohibited from bidding on the geographic license for the same territory in the future? Is there a sanction more appropriate than automatic cancellation?

2. Application of Title II Requirements to Common Carriers

35. We also seek comment on whether we should forbear from applying certain obligations on common carrier licensees in the 24 GHz band pursuant to Section 10 of the Act.[81] In the case of commercial mobile radio service ("CMRS") providers, the Commission concluded that it was appropriate to forbear from Sections 203, 204, 205, 211, 212, and most applications of Section 214.[82]

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78 *See* note 74, *supra*.

79 *See LMDS Second Report and Order*, 12 FCC Rcd at 12659, ¶¶ 263-267.

80 *See e.g.* 47 CFR § 22.940(a)(1)(i).

81 *See* 47 U.S.C. § 160(a)(1-3). Section 10 provides the Commission with authority to forbear from application of virtually any regulation or any provision of the Act to a telecommunications carrier or telecommunications service, or a class of carriers or services. But, the Commission may not forbear from applying the requirements of Sections 251(c) or 271 until it determines that those requirements have been fully implemented. *See* 47 U.S. C. § 160(d).

82 See Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of

The Commission, however, declined to forbear from enforcing other provisions, including Sections 201 and 202.[83] The Commission has also exercised its forbearance authority in permitting competitive access providers ("CAPS") and competitive local exchange carriers ("CLECs") to file permissive tariffs.[84] We seek comment on whether it is appropriate to forbear from enforcing any provisions of the Act or the Commission's rules in the 24 GHz band.[85]

E. Technical Rules

36. As discussed above,[86] our general proposal is to apply the rules in Part 101 to govern the use

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Mobile Services, *Second Report and Order*, 9 FCC Rcd. 1411, 1463-93, ¶¶ 124-219, 272. Although the Commission recently concluded that, pursuant to Section 10(a)(3), forbearance from the international Section 214 application process would not be consistent with the public interest, we substantially streamlined the international 214 process, providing significant regulatory relief. *See* 1998 Biennial Regulatory Review-Review of International Common Carrier Regulations, *Report and Order*, FCC 99-51, ¶ 18 (released March 23, 1999). *See also* In the Matter of Personal Communications Industry Association's Broadband Personal Communications Services Alliance's Petition for Forbearance For Broadband Personal Communications Services, Forbearance from Applying Provisions of the Communications Act to Wireless Telecommunications Carriers, *Memorandum Opinion and Order and Notice of Proposed Rulemaking, ("Forbearance Order")* FCC 98-134, ¶ 119, (released July 2, 1998). See also Implementation of Section 402(b)(2)(A) of the Telecommunications Act of 1996 and Petition for Forbearance of the Independent Telephone & Telecommunications Alliance. *Report and Order in CC Docket No. 97-11, Second Memorandum Opinion and Order in AAD, File No. 98-43,* FCC 99-104 (released June 30, 1999) (eliminating entry certification filing requirements under Section 214 and significantly streamlining exit certification requirements, granting the substance of the Section 214 regulatory relief requested by the members of the Independent Telephone and Telecommunications Alliance in their petition for forbearance, and extending that relief to all other domestic carriers.)

[83] *See Forbearance Order, supra,* ¶¶ 14-31. The Commission also declined to forbear from applying Section 20.12(b) of the Commission's rules, which requires broadband personal communications service, cellular, and covered specialized mobile radio carriers, to permit unrestricted resale of their services until five years after the last group of initial licenses for broadband PCS is awarded. *Id.* at 44.

[84] *See* In the Matters of Hyperion Telecommunications, Inc. Petition Requesting Forbearance, Time Warner Communications Petition for Forbearance, Complete Detariffing for Competitive Access Providers and Competitive Local Exchange Carriers, *Memorandum Opinion and Order and Notice of Proposed Rulemaking*, 12 FCC Rcd 8596 at ¶¶ 23-27, (1997).

[85] For example, the Wireless Communications Association International, Inc. has requested that the Commission forbear from imposing regulations on fixed wireless broadband telecommunications carriers, other than those classified as CMRS, in order to facilitate entry into the local exchange and other telecommunications markets. *See* In the Matter of Biennial Regulatory Review-Elimination or Streamlining of Unnecessary and Obsolete CMRS Regulations, Forbearance from Applying Revisions of Communications Act to Wireless Telecommunications Carriers, WT Docket 98-100.

[86] *See* ¶¶ 11-12, 15, *supra.*

of the 24 GHz band, except as they may be modified as a result of this proceeding. This would include technical parameters such as channelization, frequency tolerance and stability, power and emission limitations, antennas, and equipment authorization.[87] Also, general provisions of Part 101, such as environmental and radio frequency (RF) safety requirements, and the protection of quiet zones, would be applicable.

37. The technical parameters for operations at 24 GHz were adopted in the *Reallocation Order*. As discussed there, such parameters were derived, for purposes of expedience, from those applied to operations at 18 GHz , and may not have been exactly suited to operations at the higher 24 GHz band.[88] The use of the higher frequency band is, for example, one reason for the change in channelization. We have little information in the record at this time, however, on which to propose other specific changes to the Part 101 rules. New developments in fixed technology, besides those generated by the transition to a new band, may warrant other changes in the technical parameters.[89] Moreover, changes and advancements in technology may, in the future, warrant use of this band for not only digital modulation, but also other modulations. In that connection, it is not our intent to impose technological requirements which may in the future restrain more efficient and innovative use of this spectrum. Therefore, we solicit comment regarding whether this service should be limited to digital modulation and whether further development of service at 24 GHz will be facilitated by technical parameters different from those that are currently in Part 101. Regardless of the final set of technical rules adopted in this proceeding, we propose that they all apply to all licensees in the 24 GHz band, including licensees that acquire their licenses through partitioning and disaggregation. But, none of the proposed rule changes are directed at, nor intended to apply to DEMS licensees that operate in the 10 GHz band. While it is our tentative view that most technical issues are addressed by the current rules, there is one specific technical issue that warrants some attention and is therefore discussed below. We solicit comments, however, on all technical parameters that should apply to operations at 24 GHz.

1. Licensing and Coordination of 24 GHz Stations

38. With one exception, incumbent licenses have been granted, by waiver, on an area wide basis. However, nodal stations, which serve as the central or controlling station in a radio system

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[87] *See Reorganization and Revision of Parts 1, 2, 21, and 94 of the Rules to Establish a New Part 101 Governing Terrestrial Microwave Fixed Radio Services,* Report and Order, 11 FCC Rcd 13449 (1996), *Recon. Pending*.

[88] 12 FCC Rcd at 3483-3485 (Appendix A).

[89] For example, the architecture of Digital Electronic Messaging Service (DEMS) systems has evolved over the years such that the subchannels within the authorized channels are wider, that is, 10 megahertz rather than 300 kilohertz. Based on this, a number of waivers of the emission limitations have been issued to existing 24 GHz licensees to reflect current developments. For this particular parameter, therefore, we have proposed specific modifications to Section 101.111 as indicated in Appendix B. The antenna directivity of user stations may likewise be appropriate for modification.

operating on point-to-multipoint frequencies,[90] must be specifically applied for by licensees and authorized by the Commission.[91] This could be viewed as a dual licensing situation and may not be necessary or administratively efficient.[92] Section 101.103(d) of the Commission's Rules[93] contains guidelines for the current frequency coordination process for Fixed Microwave Services, while Section 101.509 of the Commission's Rules[94] sets forth interference protection criteria for 24 GHz licensees. These two rule sections have similar goals: to facilitate interference-free operations, to ensure cooperation among licensees to minimize and resolve potential interference problems, and to obtain the most efficient and effective use of the spectrum and authorized facilities. The Commission intends to auction[95] the remaining spectrum in geographic areas and believes that licensees must be assured a reasonable and effective use of their own areas, while equally protecting the interests of other licensees.

39. We tentatively conclude that a requirement to coordinate those 24 GHz nodal stations located within the boundaries of a licensed SMSA or other geographic licensing area prior to putting them into operation would be sufficient to achieve these goals, and we therefore propose to replace the individual licensing of nodal stations with a coordination requirement. Such coordination would be required with co-channel 24 GHz licensees in adjacent geographic areas and with adjacent channel 24 GHz licensees in adjacent geographic areas, as well as the same or overlapping area. Based on propagational characteristics at 24 GHz, our information on planned system configurations, the current technical parameters and similar distances adopted in Commission proceedings regarding other microwave bands,[96] we tentatively conclude that the 80 km coordination distance currently specified in our rules appears to be too large. However, we propose to have each licensee coordinate with licensees in other relevant areas and develop agreements between systems. Instead of specifying a fixed distance, we propose that licensees coordinate their facilities whenever their facilities have line-of-sight into other licensees' facilities or are within the same geographic area.[97] Under our proposal, both types of

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90 *See* Section 101.3 of the Commission's Rules, 47 C.F.R. § 101.3.

91 *See* Section 101.503 of the Commission's Rules, 47 C.F.R. § 101.503.

92 There may, however, be other purposes for the filing of specific station or site information with the Commission. Such information could, for example, be used in spectrum use or management studies.

93 *See* 47 C.F.R. § 101.103(d).

94 *See* 47 C.F.R. § 101.509.

95 *See* ¶¶ 43-45, *infra*.

96 *See* Sections 101.103(g) and 101.103(l) of the Commission's Rules, 47 C.F.R. §§101.103(g), 101(i). The Coordination distances adopted were 20 km at 28 GHz and 16 km at 39 GHz. (An analysis of possible adverse impact on Canadian communications must still be done by the Commission for those stations within 56 km of the Canadian border.)

97 At a minimum, stations whose radio horizon overlaps adjacent areas should contact the relevant licensees

coordination must be successfully completed before operation is permitted. In the event that there is no 24 GHz licensee immediately available in an adjacent, same or overlapping area, the licensee must be prepared to coordinate its stations in the future in order to accommodate other licensees to ensure cooperative and effective use of the spectrum in each area. These changes are reflected in the attached rule proposals. We solicit comment on these coordination procedures and criteria.

40. As noted above,[98] international coordination is also an issue that needs to be addressed. While no specific proposals are made at this time, operations at 24 GHz in the United States will be subject to any agreements reached with Canada and Mexico. We are in the process of holding discussions with these countries to determine the types of coordination that would be necessary.

2. RF Safety

41. We propose that licensees and manufacturers be subject to the RF radiation exposure requirements specified in Sections 1.1307(b), 2.1091, and 2.1093 of the Commission's Rules,[99] which lists the services and devices for which an environmental evaluation must be performed.[100] We tentatively conclude that routine environmental evaluations for RF exposure should be required in the case of fixed operations, including base stations, when the effective radiated power (ERP) is greater than 1,000 watts.

42. We propose to treat services and devices in the 24 GHz band in accordance with the Commission's exposure limits in OET Bulletin 65, which has replaced OST Bulletin No. 65.[101]

F. Competitive Bidding Procedures

1. Statutory Requirements

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regarding coordination of facilities.

[98] *See* note 96, *supra*.

[99] *See* 47 C.F.R. §§ 1.1307(b), 2.1091, 2.1093.

[100] The RF radiation exposure limits are set forth in Sections 1.1310, 2.1091, and 2.1093 of the Commission's Rules, 47 C.F.R. §§ 1.1310, 2.1091, 2.1093, as modified in Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, *Report and Order*, 11 FCC Rcd 15123 (1996) (*"RF Guidelines Report and Order"*), *First Memorandum Opinion and Order*, 11 FCC Rcd 17512 (1996), *Second Memorandum Opinion and Order*, 12 FCC Rcd 13494 (1997).

[101] OET Bulletin No. 65 (Edition 97-01) was issued on August 25, 1997. It is available for downloading at the FCC Web Site: www.fcc.gov/oet/rfsafety. Copies of OET Bulletin No. 65 also may be obtained by calling the FCC RF Safety Line at (202) 418-2464.

43. The Balanced Budget Act of 1997 amended Section 309(j) of the Act to require the Commission to award mutually exclusive applications for initial licenses or permits using competitive bidding procedures, with very limited exceptions.[102] Thus, if not exempted by the statute, a service will be auctionable if we implement a licensing process that permits the filing and acceptance of mutually exclusive applications. In establishing particular licensing schemes or methodologies, the Commission is required to consider the public interest objectives described in section 309(j)(3).

44. Pursuant to Section 309(j)(6)(E) of the Act, the Commission has an "obligation in the public interest to continue to use engineering solutions, negotiation, threshold qualifications, service regulations, and other means in order to avoid mutual exclusivity in application and licensing proceedings."[103] In the Balanced Budget Act, Congress highlighted the Commission's obligation under Section 309(j)(6)(E) by referencing that obligation in the general auction authority provision. The Commission recently sought comment on whether that reference changes the scope or content of the Commission's obligation under Section 309(j)(6)(E). [104] In determining whether to resolve mutually exclusive applications for licenses in the 24 GHz band through competitive bidding, we intend to adhere to any conclusions we reach in the Balanced Budget Act proceeding regarding the scope of our auction authority.

45. In paragraphs 8-9, *supra*, we proposed to continue the use of a geographic area licensing scheme for the 24 GHz band, using EAs instead of SMSAs. Because we have tentatively concluded that it would serve the public interest to implement a licensing scheme under which mutual exclusivity is possible, we also tentatively conclude that mutually exclusive initial applications for the 24 GHz band must be resolved through competitive bidding. We seek comment on this tentative conclusion.

2. Incorporation by Reference of Part 1 Standardized Auction Rules

46. In the *Part 1 Third Report and Order*, the Commission streamlined its auction procedures by adopting general competitive bidding rules applicable to all auctionable services,[105] and, in the same proceeding, issued a *Second Further Notice of Proposed Rule Making* concerning designated entities and

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[102] *See* 47 U.S.C. § 309(j)(1),(2). Section 309(j)(2) exempts from auctions licenses and construction permits for public safety radio services, digital television service licenses and permits given to existing terrestrial broadcast licensees to replace their analog television service licenses, and licenses and construction permits for noncommercial educational broadcast stations and public broadcast stations.

[103] *See* 47 U.S.C. § 309(j)(6)(E).

[104] *See* Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Notice of Proposed Rule Making*, FCC 99-52 (rel. March 25, 1999) ("*BBA NPRM*").

[105] *Part 1 Third Report and Order*, 13 FCC Rcd at 381-470.

attribution rules, among other issues.[106] We propose to conduct the auction for initial licenses in the 24 GHz band in conformity with the general competitive bidding rules set forth in Part 1, subpart Q of the Commission's rules, and substantially consistent with the bidding procedures that have been employed in previous Commission auctions. Specifically, we propose to employ the Part 1 rules governing designated entities, application issues, payment issues, competitive bidding design, procedure and timing issues, and anti-collusion. These rules would be subject to any modifications that the Commission adopts in relation to the *Second Further Notice of Proposed Rule Making*. We seek comment on this proposal and on whether any of our Part 1 rules would be inappropriate in an auction for this service.

3. Provisions for Designated Entities

47. The Communications Act provides that, in developing competitive bidding procedures, the Commission shall consider various statutory objectives and consider several alternative methods for achieving them.[107] Specifically, the statute provides that, in establishing eligibility criteria and bidding methodologies, the Commission shall:[108]

> promot[e] economic opportunity and competition and ensur[e] that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women.

48. In the *Competitive Bidding Second Memorandum Opinion and Order*, the Commission stated that it would define eligibility requirements for small businesses on a service-specific basis, taking into account the capital requirements and other characteristics of each particular service in establishing the appropriate threshold.[109] The *Part 1 Third Report and Order*, while it standardizes many auction rules, provides that the Commission will continue a service-by-service approach to defining small businesses. For the 24 GHz band, we propose to adopt the definitions the Commission adopted for broadband PCS for "small" and "very small" businesses,[110] which the Commission also adopted for 2.3

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106 *Id.*, 13 FCC Rcd at 471-481.

107 *See* Sections 309(j)(3) and 309(j)(4) of the Communications Act, 47 U.S.C. §§ 309(j)(3), 309(j)(4).

108 *See* 47 U.S.C. § 309(j)(3)(B).

109 Implementation of Section 309(j) of the Communications Act – Competitive Bidding, *Second Memorandum Opinion and Order*, 9 FCC Rcd 7245, 7269, ¶ 145 (1994) (*"Competitive Bidding Second Memorandum Opinion and Order"*).

110 Implementation of Section 309(j) of the Communications Act – Competitive Bidding, *Fifth Memorandum Opinion and Order*, 10 FCC Rcd 403 (1994).

GHz and 39 GHz applicants.[111] We tentatively conclude that the capital requirements are likely to be similar to the capital requirements in those services. Specifically, we propose to define a small business as any firm with average annual gross revenues for the three preceding years not in excess of $40 million. For entities who qualify as a small business, we propose to provide them with a bidding credit of 15%.[112]

49. We observe that the capital costs of operational facilities in the 24 GHz band are likely to vary widely. Accordingly, we seek to adopt small business size standards that afford licensees substantial flexibility. Thus, in addition to our proposal to adopt the general small business standard the Commission used in the case of broadband PCS, 2.3 GHz, and 39 GHz licenses, we propose to adopt the definition for very small businesses used for 39 GHz licenses and for the PCS C and F block licenses: businesses with average annual gross revenues for the three preceding years not in excess of $15 million. For entities who qualify as a very small business, we propose to provide them with a bidding credit of 25%.[113]

50. We seek comment on the use of these standards and associated bidding credits for applicants to be licensed in the 24 GHz band, with particular focus on the appropriate definitions of small and very small businesses as they relate to the size of the geographic area to be covered and the spectrum allocated to each license. In discussing these issues, commenters are requested to address the expected capital requirements for services in the 24 GHz band. Commenters are invited to use comparisons with other services for which the Commission has already established auction procedures as a basis for their comments regarding the appropriate definitions for small and very small businesses.

51. We seek comment here on whether there are any actions specific to the 24 GHz service that should be taken to insure that this service will be provided in rural areas. Relatedly, we note that Section 309(j) requires the Commission to "promote... economic opportunity for a wide variety of applicants, including... rural telephone companies."[114] Consistent with this mandate, we seek comment on whether there are specific measures that should be taken with respect to these entities.

III. PROCEDURAL MATTERS

A. Initial Regulatory Flexibility Analysis

52. As required by Section 603 of the Regulatory Flexibility Act (RFA) of 1980,[115] the

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111 *See* 47 C.F.R. §§ 27.210(b)(1)(2), 101.1209(b)(1(i).

112 *See* 47 C.F.R.§ 1.2110(e)(2)(iii).

113 *See* 47 C.F.R. § 1.2110(e)(2)(ii).

114 *See* 47 U.S.C. § 309(j)(3)(B).

115 *See* 5 U.S.C. § 603.

Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in this *Notice*. The IRFA is set forth in Appendix A. We request written public comment on the IRFA. In order to fulfill the mandate of the Contract with America Advancement Act of 1996 regarding the Final Regulatory Flexibility Analysis, we ask a number of questions in our IRFA regarding the prevalence of small businesses in the affected industries.

53. Comments must be filed in accordance with the same filing deadlines as comments filed in this rulemaking proceeding, but they must have a separate and distinct heading designating them as responses to the Initial Regulatory Flexibility Analysis. The Office of Public Affairs, Reference Operations Division, shall send a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with Section 603(a) of the Regulatory Flexibility Act.

B. Paperwork Reduction Analysis

54. This *Notice* contains either a proposed or modified information collection. As part of our continuing effort to reduce paperwork burdens, we invite the general public and the Office of Management and Budget (OMB) to take this opportunity to comment on the information collections contained in this *Notice*, as required by the Paperwork Reduction Act of 1995, Pub. L. No. 104-13. Public and agency comments are due at the same time as other comments on this *Notice*; OMB comments are due 60 days from the date of publication of this Notice in the Federal Register. Comments should address:

- Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility.
- The accuracy of the Commission's burden estimates.
- Ways to enhance the quality, utility, and clarity of the information collected.
- Ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

Written comments by the public on the proposed or modified information collections are due December 10, 1999. Written comments must be submitted by the OMB on the proposed or modified information collections on or before 60 days after the date of publication in the Federal Register. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judy Boley, Federal Communications Commission, Room 1-C804, 445 12th Street, S.W., Washington, D.C. 20554, or via the Internet to jboley@fcc.gov, and to Timothy Fain, OMB Desk Officer, 10236 New Executive Office Building, 725 17th Street, N.W., Washington, D.C. 20503, or via the Internet to fain_t@al.eop.gov.

C. Ex Parte Presentations

55. For purposes of this permit-but-disclose notice and comment rulemaking proceeding, members of the public are advised that *ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed under the Commission's Rules.[116]

D. Comment Dates

56. Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before December 10, 1999, and reply comments on or before December 27, 1999. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.[117] All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. To file formally, interested parties must file an original and four copies of all comments, reply comments, and supporting comments. If interested parties want each Commissioner to receive a personal copy of their comments, they must file an original plus nine copies. Interested parties should send comments and reply comments to the Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554, with a copy to Howard Davenport, Wireless Telecommunications Bureau, 445 12th Street, S.W., Washington, D.C. 20554. Parties are also encouraged to file a copy of all pleadings on a 3.5-inch diskette in Word 97 format.

57. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address." A sample form and directions will be sent in reply.

58. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554.

59. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center, 445 12th Street, S.W., Washington, D. C. 20554.

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[116] *See generally* 47 C.F.R. §§ 1.1202, 1.1203, 1.1206(a).

[117] *See* Electronic Filing of Documents in Rulemaking Proceedings, *Report and Order*, 13 FCC Rcd 11322 (1998); Electronic Filing of Documents in Rulemaking Proceedings, *Memorandum Opinion and Order*, 13 FCC Rcd 21517 (1998).

E. Further Information

60. For further information concerning this rulemaking proceeding, contact Howard Davenport at (202) 418-0585, Wireless Telecommunications Bureau, Federal Communications Commission, Washington, D.C. 20554.

IV. ORDERING CLAUSES

61. Accordingly, IT IS ORDERED that these actions ARE TAKEN pursuant to Sections 1, 4(i), 7, 301, 303, 308 and 309(j) of the Communications Act of 1934, 47 U.S.C. §§ 151, 154(i), 157, 301, 303, 308, 309(j).

62. IT IS FURTHER ORDERED that NOTICE IS HEREBY GIVEN of the proposed regulatory changes described above, and that comment is sought on these proposals.

63. IT IS FURTHER ORDERED that this *NPRM* is hereby ADOPTED.

64. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this Notice, including the Initial Regulatory Flexibility Analysis to the Chief Counsel for Advocacy of the Small Business Administration in accordance with Section 603(a) of the Regulatory Flexibility Act of 1980, Pub. L. No. 96-354 , 94 Stat. 1164, 5 U.S.C. §§ 601-612.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Magalie Roman Salas
Secretary